We claim:

1. A method for shifting the output wavelength of a laser system having an output with a nominal output wavelength to an eye-safe wavelength

(a) providing a hollow core photonic band gap (PBG) fiber;

(b) filling the hollow core PBG fiber with a gas selected to shift the nominal output wavelength of the laser system to a predetermined value; and

(c) applying the output of said laser system to said hollow core PBG fiber.

2. The method as recited in claim 1, wherein step (c) comprises:

applying the output of a Yb fiber laser system having a nominal output wavelength in the range of 1060-1120 nm to said hollow core PBG fiber.

3. The method as recited in claim 2, wherein step (b) comprises filling the hollow core PBG with D_2 gas.

4. The method as recited in claim 1, wherein step (c) comprises applying the output of a diode laser having a nominal output in the range of 940-980 nm to said hollow core PBG fiber.

5. The method as recited in claim 4, wherein step (b) comprises filling the hollow core PBG fiber with H_2 gas.

6. A Raman laser having an eye-safe output wavelength, the Raman laser comprising:

a fiber coupled diode array having a nominal output wavelength in the range of 940-980 nm; and a hollow core photonic band gap (PBG) fiber filled with H_2 gas, coupled to the output of said fiber coupled diode array.

7. The Raman laser recited in claim 6, further including a Stokes seed source coupled to said hollow core PBG fiber forming a Raman amplifier.

8. A Raman laser having an eye-safe output wavelength, the Raman laser comprising:

a Yb fiber coupled frequency matched diode array having a nominal output wavelength in the range of 1060-1120 nm; and

a hollow core photonic band gap fiber filled with D_2 gas, coupled to the output of said fiber coupled diode array.

9. The Raman laser as recited in claim 8, further including a Stokes seed source coupled to said hollow core PBG fiber forming a Raman amplifier.